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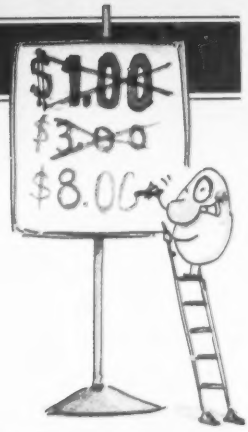

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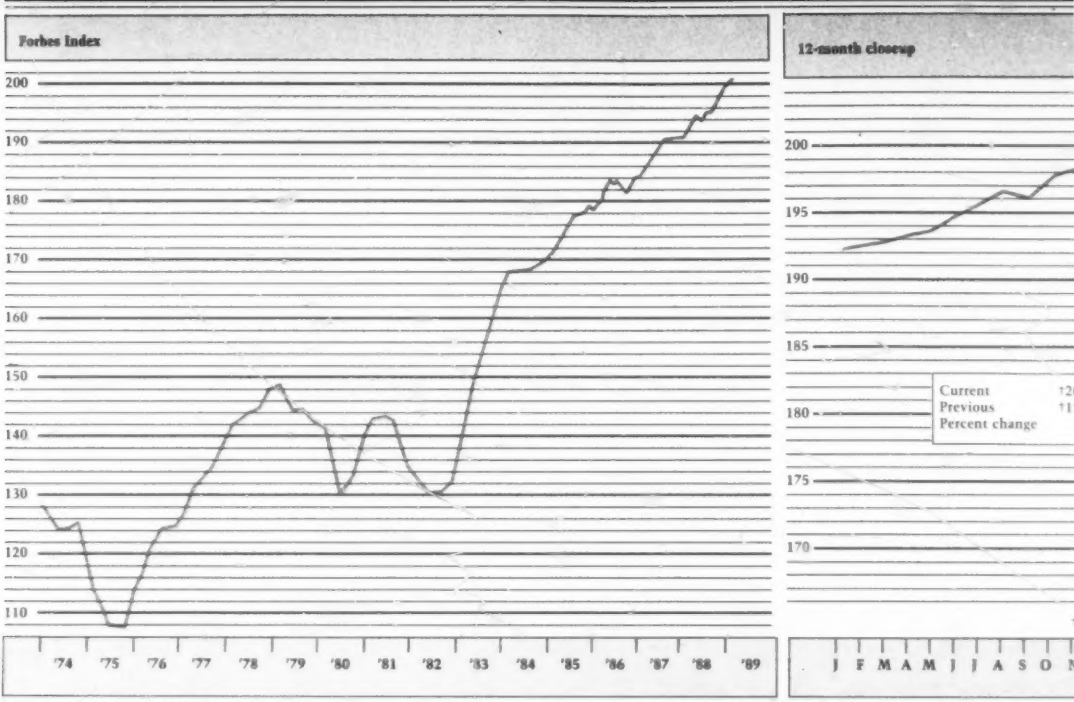
The Forbes Index



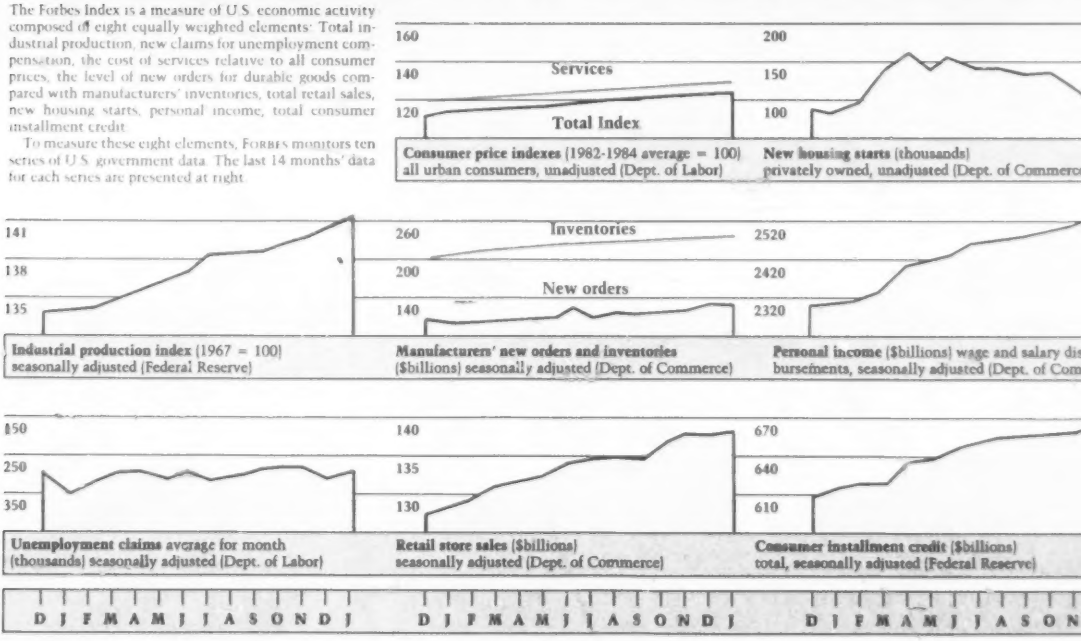
Money for spending. Personal income rose 1.1%, to an annual rate of $2.56 trillion in January, a record, the Commerce Department reports. This puts the paychecks of Americans 11.7% above their January 1988 level. During this time consumer installment credit rose 8.3%.

January's economic momentum—shown in the government's index of leading indicators, which went up (appears to have spilled over into February. The une ment rate dropped 0.3%, to 5.1%. This is the lowe since 1974. Banks responded to these inflationary by raising the prime rate to 11.5%, the highest it h since November 1984.

The Forbes Index Components

The Forbes Index is a measure of U.S. economic activity composed of eight equally weighted elements: Total industrial production, new claims for unemployment compensation, the cost of services relative to all consumer prices, the level of new orders for durable goods compared with manufacturers' inventories, total retail sales, new housing starts, personal income, total consumer installment credit.

To measure these eight elements, Forbes monitors ten series of U.S. government data. The last 14 months' data for each series are presented at right.



Consumer price indexes (1982-1984 average = 100) all urban consumers, unadjusted (Dept. of Labor)

New housing starts (thousands) privately owned, unadjusted (Dept. of Commerce)

Industrial production index (1967 = 100) seasonally adjusted (Federal Reserve)

Manufacturers' new orders and inventories ($billions) seasonally adjusted (Dept. of Commerce)

Personal income ($billions) wage and salary disbursements, seasonally adjusted (Dept. of Com

Unemployment claims average for month (thousands) seasonally adjusted (Dept. of Labor)

Retail store sales ($billions) seasonally adjusted (Dept. of Commerce)

Consumer installment credit ($billions) total, seasonally adjusted (Federal Reserve)

using." Whatever the reason, Shearson began a pilot program with 80 of ADP's FS Partner terminals in January, and is scheduled to begin installing 18,000 workstations this month.

Quotron has won some minor battles. It is replacing ADP's old Bunker Ramo system at Kidder, Peabody (3,000 terminals) and at A.G. Edwards (5,000 terminals). But so far ADP is winning the war. In all, over the next two years ADP's FS Partners will probably replace some 35,000 Quotron terminals. That would give ADP more than 60% of the market, and reduce Quotron's share to around 30%.

For all its momentum, two factors could work against ADP. First, there is the problem of bugs in the FS Partner technology. ADP is currently about six months behind schedule at Merrill Lynch, and this is causing many potential ADP customers to take an I'll-believe-it-when-I-see-it attitude. Remember that in the early 1980s a joint venture between Merrill Lynch and IBM to develop a stock quote system ate up a reported $100 million before it was abandoned in 1986.

But DuWayne Peterson, Merrill Lynch's chief technical officer, says he expects FS Partner to survive. Describing the difference between the Quotron systems and FS Partner as "night and day," he says: "We don't see any technical problems getting in our way." Agrees Shearson's Morrison: "There's nothing on the horizon that says this won't happen."

Potentially more dangerous is a reinvigorated Quotron. Less than 10% of Quotron's business currently comes from overseas, and that is mostly from U.S.-based customers.

This room for growth no doubt adds to Quotron's attractions in the eves of a suitor. Despite recent denials by Citicorp Chairman John Reed, rumors keep surfacing that Citicorp wants to sell Quotron. One party interested in Quotron's 100,000-terminal distribution system—perhaps to buy, perhaps to do a joint venture—would be Britain's aggressive and well-managed Reuters Holdings Plc. Reuters already has over 170,000 terminals in place worldwide to access everything from world news to historical databases. In the last four years it has bought ten information-oriented firms, several of which provide databases on commodities, precious metals and banking. And though Reuters dominates the equities market in Europe, it has very little presence in the U.S. and has so far shown no inclination to compete for brokerage clients here.

ADP versus Reuters? Now that would be a fight worth watching. ■

How do you turn a low-priced commodity chemical into a specialty product? Ask Alexander Giacco at Himont.

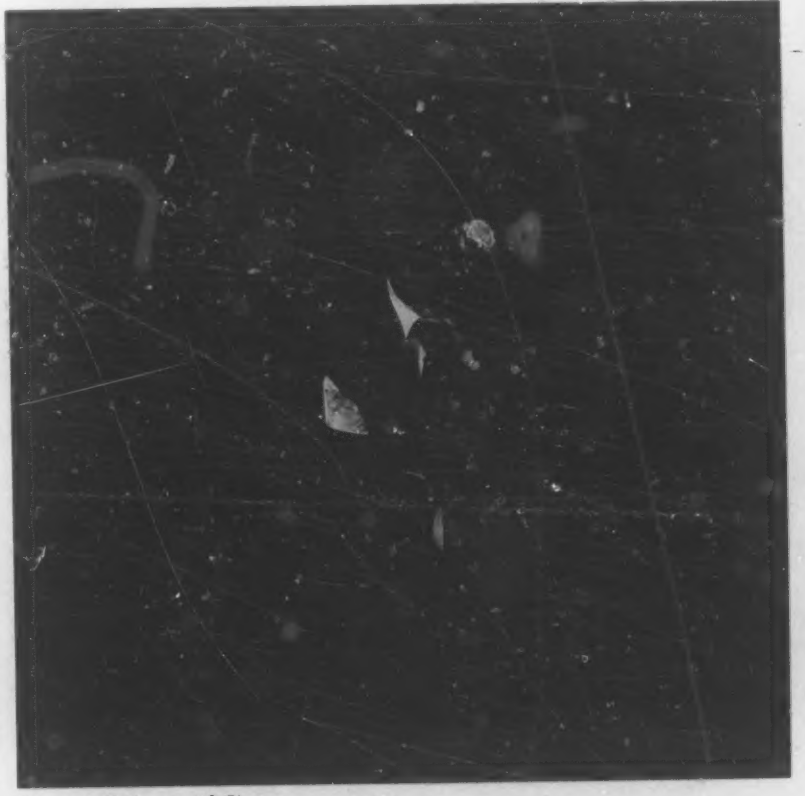
Defying the law of gravity

By Alyssa A. Lappen

GIVEN ENOUGH TIME and demand, every specialty product will eventually become a commodity. This businessman's law of gravity has in time lowered profits on everything from cars and television sets to computers and wall-to-wall carpeting.

But we've found a company that is defying gravity in, of all things, that most commoditylike of businesses, plastics. The company, Himont, Inc., a specialty chemical firm formed six years ago as a joint venture of Hercules Inc. and Italy's Montedison SpA, has grown from $915 million to $1.7 billion in revenues, with aftertax profit margins widening from 8% of sales in 1984 to an astounding 22% last year. Compare that with the 7.2%

James Lukoski/JB Pictures

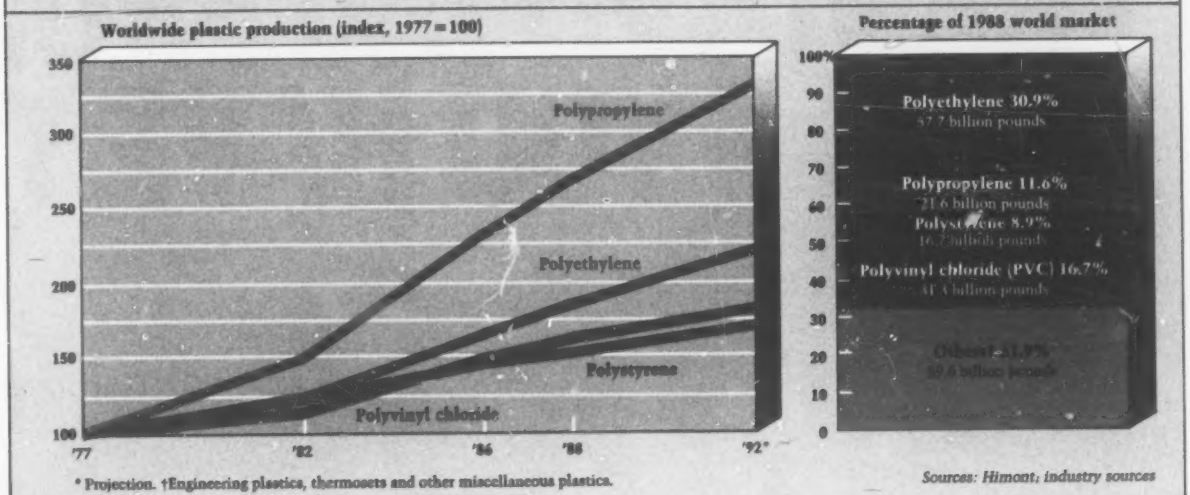


Himont Chairman Al Giacco
Make the versatile even more so, and charge a premium.

Andy Christie

The best of the polys

Polypropylene already accounts for nearly 12% of the world's total plastics market (right), but it is growing at an annual rate of more than 10%—twice as fast as any of the other major plastics (left).



* Projection. †Engineering plastics, thermosets and other miscellaneous plastics.

Sources: Himont; industry sources

median for specialty chemical companies last year. Himont's key product? Polypropylene, a plastic that virtually every industry analyst calls a commodity, and one in which Himont controls 20% of the world market.

Why has Himont chosen to concentrate on polypropylene, and how has the company made the bet pay off? The answer is simple: Polypropylene is the most versatile plastic known to man, available to manufacturers in hundreds of different grades and at prices that span the full range of the plastics market. It is used in everything from carpet fibers and car bumpers to disposable diapers.

By contrast, the other "polys" of the plastics world—polyethylene, polyvinyl chloride and polystyrene—tend to be more expensive to use but have many fewer uses. Thus polypropylene production, about 22 billion pounds last year, is growing at more than 10% annually, twice the growth rate of other plastics *(see chart)*.

Himont has capitalized on polypropylene's versatility by figuring out how to improve the commodity in ways that no one else can and then charging a premium for it—a rare trick indeed in the chemical or indeed any other business.

Himont is succeeding because its energetic 69-year-old chairman, Alexander Giacco, was determined from the outset that his firm would be a first-rate "materials company," not simply a maker of cheap plastics. Giacco, who as head of Hercules initiated the 1983 joint venture with Montedison that created Himont, theorized that customers would always pay a premium price for a better product. In Montedison Giacco saw a company with the technology to improve polypropylene, and in Hercules he had a company with the proven marketing expertise to promote the improved products effectively.

Montedison had always been a technologically strong company, and one of its scientists, Giulio Natta, in fact had won the Nobel Prize for the 1954 invention of polypropylene. In the mid-1970s the firm had also patented the Spheripol process of making polypropylene for up to 20% less per pound than any of its rivals could.

Giacco coveted Montedison's unexploited idea for making polypropylene for less. But its real advantage was in making an already versatile material even more versatile. Spheripol plastic can be stronger, less brittle and more flexible than plastic made with the conventional processes.

Since 1983, the silver-haired Giacco has turned this superpoly into more than 250 new products, plastics that go into everthing from tents and sewer pipes to see-through juice bottles and VCR tape boxes. When hospital supply firms wanted syringes that would not turn yellow or disintegrate after being sterilized with radiation, Himont came up with a plastic that could do the job. It now supplies over 80% of the plastic syringe market. Himont has even added an industrial design department to help customers use its plastics in everything from lawnmowers and camping vans to high-fashion shoe boxes.

Now Himont has begun licensing its Spheripol process to other polymakers like Hoechst and Aristech. Last year Himont earned an estimated $40 million aftertax, or 11% of the total corporate net income, from sales of such licenses and catalysts and royalty fees.

But isn't Himont selling the ideas that have made it rich? No way, insists Giacco, who points out that his company will soon be introducing an even newer production technology—its so-called Catalloy process—which he hopes will continue to keep it ahead of the pack.

Keeping a premium-priced edge in a world of commodity products takes plenty of capital spending and research, and Himont scrimps on neither. Since 1983 the company has spent $550 million in upgrading its facilities, and now it plans to spend an additional $1.6 billion by 1993—all of it from cash flow—on new advanced material plants, research laboratories and joint ventures around the globe.

Despite all this, Himont trades at 40¾ per share—just seven times estimated 1989 earnings—about the same as the ratios for many other chemical companies. Why not more? Wall Street fears that Himont's earnings could fall sharply if polypropylene prices drop. In reality, of course, if polypropylene prices do drop, Himont will be hurt the least of any company. That's the advantage of making better products for less. ■

Why do so many new stock issues perform so miserably? One reason is that Wall Street prices them too high too often.

But the client is delighted

Patrick McDonnell

By Richard L. Stern and Charles M. Bartlett Jr.

A TRUE TALE of Wall Street: When the very prominent head of a major investment banking house called a meeting of his New York brokers a few years back, the brokers figured he wanted to apologize. On the basis of rosy research reports from their own investment banking department and its corporate client, the brokers had put customers into a large new stock offering that collapsed within a week of issue because of sudden bad news from the company. Now the investors were screaming bloody murder.

Instead of apologizing to his brokers, however, their boss smiled and thanked them profusely for the fine job they had all done in placing the issue. "I want you to know," he said, "the client is delighted."

The moral of this story couldn't be plainer. Too often, when an underwriter brings a stock to the public, its chief concern is the company issuing it, not the small investor buying it.

Conflicting interests are in play when a new stock comes your way. The issuing company, of course, wants the highest price possible. The investor wants the possibility of a decent return. In between is the underwriter, which all too often cannot afford to be a truly disinterested middleman. If it doesn't price a new issue to the client's liking, the underwriter risks losing the offering to another firm that will. True, an investor burned once may not be keen to buy twice from an underwriter. But there are a lot more investors out there than companies issuing stock.

Our latest look at the performance of new stock issues, working with the unique database on new issues developed by FORBES in 1986, illustrates this bias clearly. We analyzed the relationship between the price/earnings ratio a new stock carried when issued and its subsequent performance. We had suspected that the higher the P/E, the more likely the stock was overpriced—that is, the worse it would perform over time. Suspicion confirmed. Confirmed, too, was the converse of that proposition: The lower the P/E at issue, the better the opportunity for investors to make money in a new stock.

We realize, of course, that a stock's trading multiple is only one gauge of its investment potential. An intelligent investor looks at a company's health in several different ways before buying its stock. At the same time, P/Es can be a valuable, quick shorthand. Consider the table *(p. 132)* that ranks investment banks according to the percentage of their new issues that outperformed the Standard & Poor's 500 stock index. The table shows that in almost every case, a firm's best-performing issues had lower average P/Es than the total universe of its new issues. (We considered only investment bankers that brought out ten issues or more.)

We studied new issues that came public between January 1982 and December 1987. We didn't use 1988 because we wanted new stocks that had seasoned a bit. And we also wanted to shun junk—patently high-risk offerings. So we tracked only those issues that raised at least $5 million and went public for at least $5 a share. We were able to track down P/Es for 1,236 such issues, slightly more than 70% of the total issued. We measure their performance against the S&P from the date each stock went public. As the table at left shows, 39% of the 447

Price and performance

All new stock issues between 1982 and 1987, priced at $5 or more, were ranked by price/earnings multiple. Note that the group issued at a multiple of 15 or below showed the biggest gain in market value.

P/E range	Number of issues	Average market value	Issues that outperformed S&P 500 number	Issues that outperformed S&P 500 % of total
15.00 or less	447	+41.7%	175	39%
15.01 to 30.00	340	+16.1	98	29
30.01 to 250.00	212	–0.7	35	17
neg or › 250.00*	237	–18.8	52	22

*Negative means the company was losing money when it was brought public.

Top ten investment banks

The firms that put out at least ten new issues between 1982 and 1987 were ranked according to how well their issues did relative to the S&P 500 in that period. Note that the best-performing new stocks had lower price/earnings multiples as a group than the total number issued as a group.

Underwriter	Total number of issues	Average P/E*	Issues that outperformed the S&P 500: % of number	Issues that outperformed the S&P 500: total number	Issues that outperformed the S&P 500: average P/E	Issues with P/Es under 0 or > 250: total	Issues with P/Es under 0 or > 250: % outper S&P 500
1 First Albany	10	13	70%	7	11	1	0%
2 Morgan Stanley	54	36	46	25	28	6	33
3 Thomson McKinnon	13	17	46	6	8	1	100
4 William Blair	35	16	46	16	12	1	0
5 Butcher & Singer	13	14	46	6	13	1	100
6 First Boston	53	27	45	24	26	5	20
7 JC Bradford	16	22	44	7	22	4	0
8 Goldman, Sachs	74	24	43	32	15	5	0
9 Blunt Ellis & Loewi	19	15	42	8	14	1	100
10 Janney Montgomery	10	12	40	4	13	0	0

Worst six investment banks

1 DH Blair	13	13	8%	1	none	8	13%
2 Rotan Mosle[1]	11	24	9	1	37	3	0
3 Rooney, Pace[2]	12	26	17	2	14	3	0
4 Bateman Eichler	11	14	18	2	3	2	0
5 Hambrecht & Quist	72	44	18	13	17	13	8
6 Eppler Guerin	11	38	18	2	111	2	0

*Includes P/Es for 1,236 companies, or 71% of those brought public. [1]Division of PaineWebber [2]Filed for Chapter 11.

Sources: Security Data Co; Wilshire Associates; Forbes

issues that had P/E ratios no higher than 15—that is, the most reasonably priced ones—outperformed the S&P 500.

Price/earnings ratios also provided the key to understanding which underwriting firms provided the best merchandise from an investor's point of view. Albany-based First Albany Corp. had the best new-issue record, and one of the lowest average P/Es *(see box)*. Seven of the ten issues it brought out in the period performed at least as well as the S&P, and their average P/E was 11.

Number-two-placed Morgan Stanley would at first glance seem to be an exception to the rule about performance and lower P/Es. But it isn't. Its 54 issues had a P/E of about 36. The 25 issues that outperformed the S&P had an average P/E of 28—still pretty high. But, in fact, if you pulled out of Morgan Stanley's 25 winners 2 stocks that distorted the average because of their extremely high P/Es, Silicon Graphics and Tri-Star Pictures, the remaining 23 stocks would have an average P/E of 16.

San Francisco-based Hambrecht & Quist, known for high-tech issues, supports our case on the downside. It ranked 53rd among our 57 investment banks. Its new issues had an average P/E of 44. But its 13 best performers had an average P/E of 17. Of the 13 issues it brought public with a P/E of 250 or more or with no earnings at all, there was only 1 winner.

The worst-performing firm? New York City-based D.H. Blair, known for risky issues. Only 1 of its 13 issues beat the S&P. D.H. Blair's record also illustrates the risks of buying new issues in companies that are losing money. In all, 7 issues it brought public with negative earnings did worse than the S&P. But none of the issues brought public with positive earnings outperformed the market. Conclusion: Know your broker's record.

Another conclusion: When the stock market is roaring, investors appear more willing to take whatever Wall Street is serving up. According to our database, in years like 1983, when the public appetite was strong for new issues, the S&P's average P/E was 12.5, but the average new-issue multiple was 32. In 1985, as investors' appetites for new issues declined, the average new-issue P/E fell to 20 (versus 12.5 again for the S&P).

"When the ducks quack, feed them" is one of Wall Street's more cynical clichés, used to explain why it keeps offering so much overpriced merchandise. Small wonder, then, if the ducks disappear when the market is feeding on them. ■

"We figure out what makes sense"

"You make your reputation by the deals you don't do." That's George McNamee talking, the 42-year-old chairman and president of First Albany Corp., based in New York's state capital. As the table above shows, First Albany is the top-performing underwriter in Forbes' latest study of the new-issue market. This time we ranked investment bankers that brought out ten new issues or more, priced at $5 or more, between 1982 and 1987. An impressive 70% of the ten new issues First Albany brought to market in that period did better than the Standard & Poor's 500. As of Jan. 13, nine of ten were selling for more than their offering price.

First Albany had only one real clunker, Westerbeke, an Avon, Mass.-based manufacturer of marine engines, off nearly 80% from its August 1986 offering price. Major parts of its engines come from the Far East, so it has suffered from the rising yen, says McNamee.

First Albany's biggest winner is Raymond Engineering, a maker of such military equipment as computer-based weapons systems controllers, which went public in 1982 at 10½ (adjusted for splits) and was acquired by Kaman Corp. in 1986 at $30 a share.

With 28 offices in New York, Massachusetts, New Hampshire, Vermont and Connecticut, First Albany concentrates on new issues from its own region. "We turn away a lot of deals, and some of them turn up at other firms," says McNamee.

McNamee stays away from issues in which owners or venture capitalists are using the public markets to cash out by selling a lot of their own stock. First Albany, he says, prefers "corporate clients [who] want to be there for 10 and 20 years."—R.L.S.

Science & Technology

Edited by Gary Slutsker

In utility economics, the supply side is the hard side. New generating plants cost a fortune. So it makes sense to invest money in the customer instead.

Demand-side economics

By Paul Klebnikov

WHEN United Technologies' Carrier division starts selling its Hydrotech 2000 electric heat pump in May, it will get a boost from an unexpected quarter—namely, electric utilities. To inspire people to install the $7,000 device, utilities like Georgia Power will promote the heat pump with low-interest loans, subsidies to dealers and rebates to customers. What's special about Carrier's heat pump is that it is 30% more efficient than conventional systems.

At first blush, the heat pump offer makes as much sense as a dog food manufacturer paying you to trade in your Doberman for a Chihuahua. But these days the electric power industry is in a nasty bind. Hard on the heels of the oil price shocks of the 1970s and the demise of nuclear power comes a fresh energy crisis. Economic growth has spurred electricity demand by better than 4.4% in each of the last two years, almost double the expected rate. But new power plants cost a fortune. Midwestern utilities, moreover, face the threat of acid rain legislation that could force them either to close older coal-fired generators or to retrofit them with emission controls costing up to $500 million per plant.

To meet new demand—even without an acid rain law—utilities will have to add as much as 73 gigawatts of capacity over the next eight years. A gigawatt, or 1 billion watts, is the power of a large coal-fired plant, or a very large nuclear one. It's enough to serve a city of about 400,000. But nobody wants to see more power plants, least of all the utilities themselves. A 1-gigawatt coal plant costs $1.5 billion to build, including currently required emission controls.

Robert Reichert

Carrier engineer checking heat pump
Squeezing more heat from the air.

Thus, the utilities are beginning to understand the subtle economics of a new science known as demand-side management. To compete better against natural gas and to conserve electricity where the supply is getting short, utilities are promoting a range of new efficiency technologies—from heat pumps to computerized supermarket refrigerators and even subterranean tanks that store heat created with cheap power in the wee hours.

The savings in view could be enormous. The Electric Power Research Institute, the industry's research and development consortium, figures such efficiencies have, since 1977, already obviated the need for 21 gigawatts of new generating capacity. The institute estimates that demand-side management programs could eliminate the need for another 24 gigawatts of capacity by the year 2000.

The number of these so-called demand-side management programs has already risen dramatically, from 134 in 1977 to 1,300 today. Progressive utilities such as Pacific Gas & Electric were active ten years ago. Today demand-side management is practiced from Florida to Maine to Oregon. These programs currently cost U.S. utilities over $1 billion a year, and the pace is quickening. Meanwhile, the Electric Power Research Institute will spend $41 million on end-use research this year, more than triple the amount spent six years ago.

Virtually no user of electricity is exempt from savings. The new technologies improve:

Heat pumps. Faced in the early 1980s with competition from high-efficiency gas furnaces, EPRI commissioned an advanced heat pump that combined the functions of the two biggest consumers of household electricity—heating and air conditioning—along with heating water. Carrier Corp. spent six years in the lab on the project and is launching the Hydrotech 2000 in May. The heat pump uses computers to control fans and a variable-speed compressor to cool a building in summer and heat it in winter, while diverting excess heat to a hot-water heater.

Conventional heat pumps are already a 900,000-unit-per-year business. A heat pump is a marvelous device that can turn 1 kilowatt-hour of electricity into 2 or even 3 kilowatt-hours of heat. That may seem to contradict the laws of physics, but it really doesn't: The electricity the customer is paying for is being used, not to create heat from scratch, but to capture the heat already present in outside air. If the air is at 40 degrees, it contains a lot of heat and needs only a little work to produce warmth inside the house.

After-hours storage. Thermal storage, the principle behind bed warmers, is coming of age. The research institute's new storage furnace is up to 40% cheaper than recent European technology because it uses ordinary basalt gravel as the storage medium instead of expensive ceramic brick. Cheap nighttime electricity fires an electric furnace, while a fan draws the hot air into the gravel; during the day, the fan reverses itself and blows the

heat out into the house. To encourage off-peak energy use, which smooths out high daytime peak loads, New York State Electric & Gas and Minnesota-based United Power Association are selling half-price electricity and even giving up to $1,200 rebates to buyers of a $3,500 EPRI-licensed thermal storage system made by CaliDyne Corp., a venture of FluiDyne, a small builder of aerospace wind tunnels based in Elk River, Minn.

The same technology can air-condition buildings in a warm climate by cooling water or making ice. Water is chilled at night and then circulated during the day for cooling. In the past few years more than 1,000 such systems have been installed. Utilities love off-peak cooling. The Dallas Power & Light Co., for instance, helped develop such a system for Dallas' tallest building, the 72-story InterFirst Plaza. A 2-million-gallon cool-water storage tank sits beneath the building's parking lot and saves $150,000 a year in electric bills.

Supermarket refrigerators. The refrigeration systems of the nation's 35,000 supermarkets account for an eye-popping 2% of total U.S. electricity use. Over the last few years EPRI has been pushing a system in which computers control multiple compressors of different sizes to match the cooling requirements of the moment much more precisely than single-unit compressors. In field tests in a Safeway store in Menlo Park, Calif., the system cut the electricity used for refrigeration by 23%. Since electricity expense for the average supermarket is almost as much as its pretax net, this idea is getting serious attention. Hence, 55% of the refrigerator sales by market leader Hussmann Corp. now consist of such systems.

Commercial lighting. Lighting accounts for a quarter of the nation's consumption of electricity. Improvements in fluorescent lighting are already making themselves felt. Electronic ballasts, which start up and control fluorescent light bulbs, are at least twice as expensive as the magnetic ballasts they replace. But fixtures using them consume 25% less energy to produce the same light. Electronic ballasts also eliminate that annoying flickering. The new lights, developed with help from the Lawrence Berkeley Laboratory in California, now account for under 10% of the $450 million fluorescent market.

There have been a few pioneering efforts to make better use of sunlight in commercial and industrial buildings. One oft-cited example of so-called daylighting is the passenger terminal in the Albany (N.Y.) County Airport, which has cut an estimated 40% of its lighting and 20% of its heating costs by installing a glass roof and using a computer to dim the lights whenever possible.

Low-emissivity windows. Since these windows were introduced commercially six years ago, they are now sold by virtually every major window manufacturer from Anderson to Rolscreen/Pella, and have gained 10% of the $7 billion residential market. Emissivity describes how a warm surface discards heat by emitting infrared rays. Low-e windows, which are coated with a virtually transparent film that cuts down on infrared emissions, typically cut heat loss at least 25% over conventional double-glazed windows. At Lawrence Berkeley Laboratory, engineers in the buildings science division are field-testing a gas-filled, plastic-coated "super window" that raises the intriguing prospect of letting through less heat than the average insulated wall.

Factory machines. Although adjustable-speed drives and better motors have made factory floors more energy efficient in recent years, further gains could account for at least 2 gigawatts of savings by the year 2000.

How do you motivate atavistic utilities to spend more on demand-side management? Change the rate structure, which in most states discourages investments in end-use programs and encourages bulk use of electricity. Sign of the times: One suggestion by regulators at last September's convention of state utility commissions was to reward utilities that lowered the average bill through investment in greater efficiency.

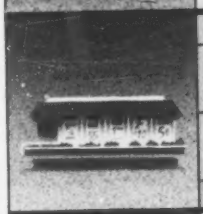
Traditional-minded utility managers are skeptical. "The success of demand-side management is in the eye of the beholder," says Raymond Maliszewski, vice president at American Electric Power. "You build a generating plant, and you can see what you have constructed, you can turn it on and measure what comes out of it. With demand-side management there's more uncertainty."

But power plant construction is an uncertain business, too. Look no further than those costly nuclear plants that the governors of New York and Massachusetts have decided to leave idle. Under the circumstances, demand-side management makes sense.

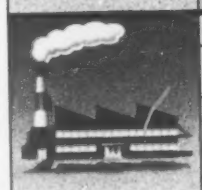
Less is more

There's a lot of potential energy in conservation. Implementing just a fourth of what's here would spare the output of 51 new nuclear plants.

End-use	% total electricity*	Technology	Efficiency gain
Residential			
space heating and air-conditioning	11%	advanced heat pump heat storage furnace low-e windows	30% 50 33
water heating	6	advanced heat pump	30



Commercial			
space heating and air-conditioning	13	cool storage systems heat storage furnace	50 50
lighting	9	daylighting electronic ballasts for fluorescent lights	25–40 33
refrigeration	4	multiplex systems	30



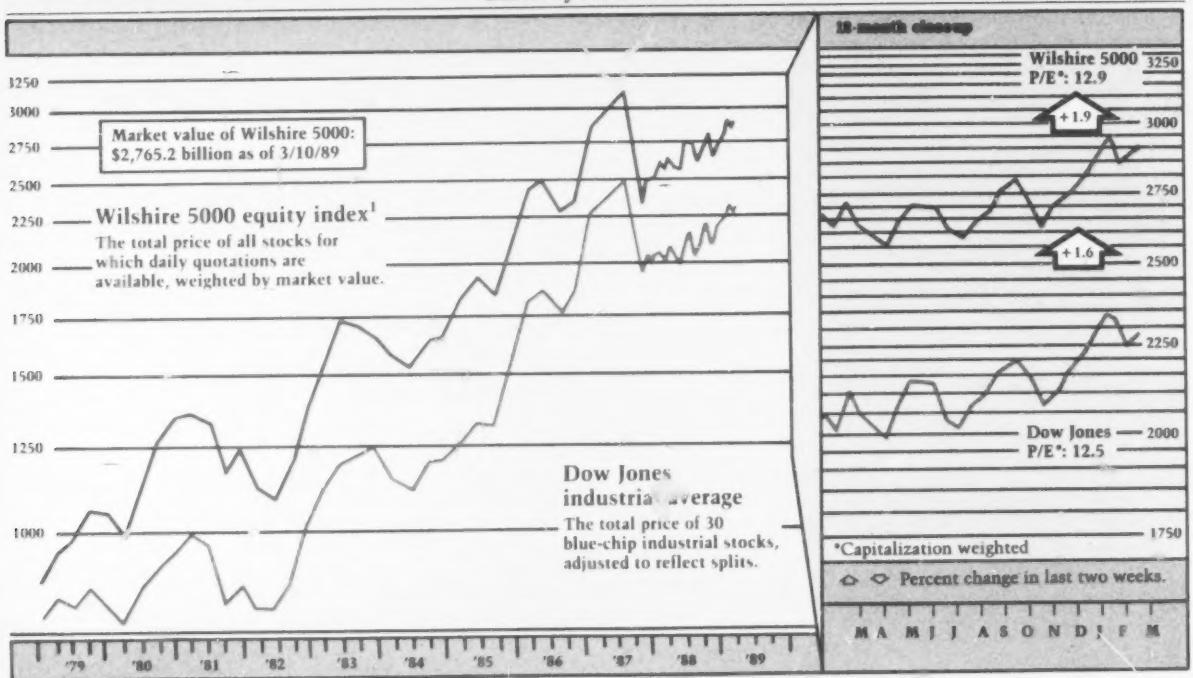
Industrial			
motor drive	25	high-efficiency motors adjustable-speed drives	15–21
lighting and miscellaneous	3	electronic ballasts for fluorescent lights	25

*1984 figures.
Sources: Electric Power Research Institute; Brookhaven National Laboratory; Lawrence Berkeley Laboratory.

Illustrations by Gerry Mooney

The Forbes/Wilshire 5000 Review

Edited by Steve Kichen


Market value of Wilshire 5000: $2,765.2 billion as of 3/10/89
Wilshire 5000 equity index[1]
The total price of all stocks for which daily quotations are available, weighted by market value.
Dow Jones industrial average
The total price of 30 blue-chip industrial stocks, adjusted to reflect splits.
3250
3000
2750
2500
2250
2000
1750
1500
1250
1000
'79 '80 '81 '82 '83 '84 '85 '86 '87 '88 '89
18-month closeup
Wilshire 5000 P/E*: 12.9
+1.9
+1.6
Dow Jones P/E*: 12.5
*Capitalization weighted
Percent change in last two weeks.
M A M J J A S O N D J F M

Could it be this good? In most markets, climbing stock prices mean higher P/E ratios. But thanks to strong earnings, the equal-weighted Dow P/E has dropped from 14.7 to 12.6 in the last 52 weeks, even as the Dow average was posting a 12.1% gain. Dow profits are expected to rise again this year. According to consensus forecasts provided by the Institutional Brokers Estimate System, the Dow industrials are expected to earn a divisor-adjusted $243 in 1989. This means that if the Dow retains its present P/E of 12.6 and the estimates are on the mark, the Dow will be priced at 3062. What could get in the way of this pleasant prospect? The Dow earnings forecast may turn out to be too optimistic, or Wall Street could put a lower valuation on the Dow.

For the two-week period ending Mar. 10, stocks posted solid gains. The Amex, with a 2.3% gain, was the best-performing exchange. The overall market, as measured by the Wilshire index, was up 1.9%

Closeup On the Equity Markets

Performance of six leading indexes

Percent change	Wilshire 5000	Forbes 500[2]	Dow Jones industrials	NYSE Composite	Amex Market Value Index	NASDAQ Composite
in last 4 weeks	0.6	0.3	–0.2	0.5	1.9	0.9
in last 52 weeks	10.3	10.9	12.1	10.3	11.1	8.1

Stock performance based on six key investor yardsticks[3]

Percent change	Company size		Volatility[4]		P/E multiple		Dividend yield		Growth profile[5]		Share price	
	large	small	high	low	over 21	under 8	over 4.5%	none	high	low	over $34	under $4
in last 4 weeks	0.5	3.1	2.9	0.6	2.1	1.6	0.1	2.6	3.0	1.3	1.1	2.7
in last 52 weeks	12.3	13.2	10.0	5.5	23.2	11.0	0.9	14.1	8.7	10.1	17.5	–2.1

[1]Wilshire index reflects price performance. It differs slightly from market value of outstanding stocks because of retirements of equity since index was created. [2]Based on sales. [3]Equal weighted indices containing all shares with market capitalizations over $10 million. [4]A stock's sensitivity to overall market movement. High-volatility issues have wide price fluctuations, low-volatility issues are more stable. [5]A quantitative evaluation of a stock's growth image, determined by Wilshire Associates.

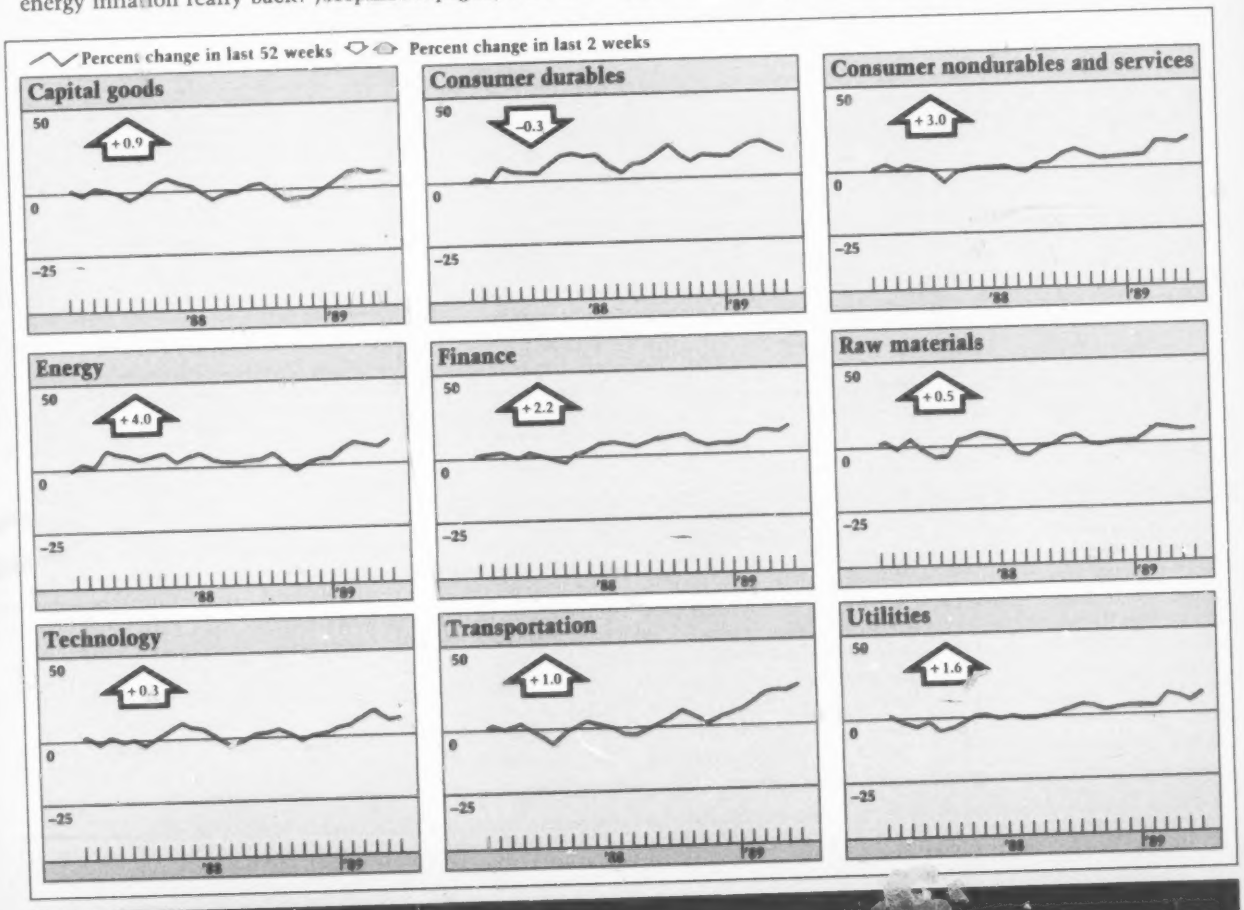
Note: All data for periods ending 3/10/89. Prepared by Wilshire Associates, Santa Monica, Calif.

Steven Ramos

Where the Action Is

Wall Street strikes oil. Energy stocks shot up 4% in the last two weeks amid rising oil prices, expectations of higher inflation and estimates of growing energy consumption. The best gains in the group were posted by the energy service stocks. NL Industries, Helmerich & Payne, Baker Hughes and Odeco posted better than 10% gains. Is energy inflation really back? Joseph Battipaglia, who follows energy stocks for Gruntal & Co. in New York City, recommends a cautious approach. "The move in these stocks is premature and I expect them to pull back," Battipaglia says.

While energy was a clear performance leader, seven other Wilshire sectors also posted gains. Consumer durables was the only sector to decline.



What the Analysts Think

Markup in consumer durables. Security analysts raised their 1989 earnings estimates for consumer durables stocks by 1.4%. Japanese stocks showed the greatest upward revisions. Estimates for Sony, NEC and Matsushita all rose by more than 6%. The 1989 forecast for camera and office machinery maker Canon was raised 19.7%.

Forecasting the Forbes Sales 500

Performance period	Average earnings per share	P/E
latest 12 months	$3.40	11.9
1989 estimates	3.95	10.2
1990 estimates	4.44	9.3

Rank based on change in estimate	Sector	Estimated 1989 EPS	Estimated 1989 P/E	% change in 1989 estimate in 2 weeks	% change in 1989 estimate in 4 weeks
1	Consumer durables	$5.08	10.2	1.41%	1.61%
2	Energy	3.10	12.1	0.75	0.8o
3	Raw materials	3.51	9.1	0.58	1.07
4	Finance	3.76	8.0	-0.05	0.12
5	Consumer nondurables	2.72	13.1	-0.10	-0.17
6	Utilities	3.08	10.1	-0.12	-0.27
7	Capital goods	3.00	12.6	-0.14	-0.34
8	Transportation	2.82	10.5	-0.39	-0.59
9	Technology	3.19	11.0	-0.84	-1.32

Earnings projections are capitalization-weighted consensus estimates from over 3,000 security analysts. Data are compiled and updated continually by the Institutional Brokers Estimate System (IBES), a service of Lynch, Jones & Ryan, a New York-based brokerage firm.

Note: All data for periods ending 3/10/89. Prepared by Wilshire Associates, Santa Monica, Calif., IBES, a service of Lynch, Jones & Ryan, New York.